Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Withdrawn) A method of forming high strength panels suitable for use in applications requiring a capability to withstand point compression loading without deformation, comprising the steps of:

providing a panel having elongated channels formed therein which are positioned along areas of anticipated point compression loading, said panel arranged and constructed to form an outside layer having a foam core therein;

providing structural foam channel inserts having an outer fabric layer and a foam core, wherein the channel inserts have a cross section which matches the cross-sectional profile of each of the elongated channels of the panel;

applying resin to at least mating portions of the outside layer of the panel and the outer fabric layer of the channel inserts;

positioning the channel inserts within the channels of the panel and allowing the resin to cure forming a composite structure.

2. (Withdrawn) The method of claim 1, wherein the panel is constructed by attaching a reinforcing fabric layer to non-woven fabric layer forming the outside layer.

3. (Withdrawn) The method of claim 1, wherein outer fabric layer of the structural foam channel inserts further comprises fabric flaps.

4. (Withdrawn) The method of claim 1, wherein the composite structure can resist deformation under conditions of point compression loading along an axis perpendicular to the panel surfaces.

5. (Withdrawn) The method of claim 1, wherein the foam core of the channel inserts and the panels are made of low-density urethane.

6. (Withdrawn) The method of claim 1, wherein the outer fabric layer of the structural foam inserts and the outside layer of the panel are arranged to continuously extend between a first surface of the panel to a second surface of the panel, so as to traverse through the foam core.

7. (Withdrawn) The method of claim 6, wherein the mating portions of the outer fabric layer of the structural foam inserts and the outside layer of the panel form a rigid cross brace between the first panel surfaces and second panel surface after the resin on the mating portions is allowed to cure, wherein the rigid cross brace resists deformation under conditions of point compression loading applied along an axis perpendicular to the panel surfaces.

8. (Withdrawn) The method of claim 1, wherein the fabric layer is selected among the group of directional reinforcing fabric layers of organic or inorganic structural reinforcing fabrics consisting of fiberglass, carbon fibers, aramid fibers, linear polyurethane fibers, polypropylene fibers, or polyester fibers or any combination thereof.

9. (Withdrawn) The method of claim 1, wherein an inner fabric layer formed within the fabric layer is a non-woven fabric composed of continuous thermoplastic fiber, needle punched together to yield a felt-like fabric.

10. (Withdrawn) The method of claim 1, wherein an inner fabric layer formed within the fabric layer is composed of materials selected from the group including polyester staple mat, glass fiber mat, or other organic and inorganic fiber mats and fabrics.

11. (Withdrawn) The method of claim 1, wherein the foam core is formed of a self-expanding, self-curing urethane foam which has been caused to expand into the interstices of an inner one of the fabric layers by having been filled into a mold in an

amount sufficient to cause pressure as a result of expansion of the foam cores to penetrate into the interstices of the inner fabric layer.

12. (Withdrawn) The method of claim 11, wherein the foam core is an MDI-based rigid polyurethane foam (methylene-diphenyl-methane diisocyanate) using "hydrogenated chlorofluorocarbons" (HCFC), water and/or CO_2 as a blowing agent

13. -18. (Cancelled)

19. (Withdrawn) A composite structure, comprising:

a panel having elongated channels formed therein which are positioned along areas of anticipated point compression loading, wherein the panel is arranged and constructed by attaching a reinforcing fabric layer to a non-woven fabric layer forming an outside layer;

a plurality of structural foam channel inserts, each insert formed from attaching a reinforcing fabric layer to a non-woven fabric layer to form an outside layer, wherein the channel inserts have a cross section which matches the cross-sectional profile of each of the elongated channels of the panel;

a structural foam attached to the non-woven fabric layer of each of the panel and the plurality of structural foam channel inserts, wherein the structural foam fills interstices of the non-woven fabric layer without penetrating into the reinforcing fabric layer;

wherein the plurality of structural foam inserts are mated with the elongated channels of the panel after being saturated with curable resin after the structural foam has been attached to the non-woven fabric layer of each of the channel inserts of the panel.

20. (Withdrawn) The composite structure of claim 19, wherein the composite structure is used to form a boat transom, wherein the composite structure further comprises a plurality of fabric flaps positioned around the outer edges of the fabric layer of the panel to permit the boat transom to be laminated into a boat construction.

21. (Currently amended) A method of forming high strength panels suitable for use in applications requiring a capability to withstand point compression loading without deformation, comprising the steps of:

positioning a first fabric layer spaced from a second fabric layer to form opposing panel surfaces;

fixing a foam core between at least a portion of said fabric layers to form said panel;

~~selectively positioning at least one rigid point compressive load bearing member between portions of said foam core along areas of anticipated point compression loading in a location to prevent compression of said foam core when a point compressive load is applied to said point compressive load bearing members;~~

defining in at least one of said opposing panel surfaces an elongated channel having a cross-sectional profile;

forming a rigid point compressive load bearing member having a structural foam core, an outer fabric layer including fabric flaps and said cross-sectional profile of said elongated channel;

applying resin to said flaps and mating surfaces of the rigid point compressive load bearing member and said elongated channel;

positioning said rigid point compressive load bearing member in said elongated channel after said applying step; and

allowing said resin to cure ~~selecting at least one of a structure and a material of said rigid point compressive load bearing member so that it has~~ to provide along a length of said rigid point compressive load bearing member a greater resistance to point compression as compared to a remaining portion of said panel exclusive of said rigid point compressive load bearing member.

22. (Canceled)

23. (Previously presented) The method according to claim 21 further comprising the step of forming at a periphery of said opposing panel surfaces a plurality of fabric tabs attached to at least one of said first and second fabric layers.

24. (Previously presented) The method according to claim 21 further comprising the step of laminating said panel into a composite boat hull to form a transom.

25. -29 (Canceled)

30. (Currently amended) The method according to claim ~~25~~ 21 further comprising the step of injecting a curable structural foam in a space between said opposing panel surfaces while constraining the first and second fabric layers from movement so as to form said foam core.

31. (Previously presented) The method according to claim 30, further comprising the step of constraining said foam under a molding pressure selected to cause said foam to penetrate only partially through an inner thickness of said first and second fabric layers so as to leave an outer exposed portion of said fabric layer free of said structural foam.

32. (Previously presented) The method according to claim 30 further comprising the step of attaching a non-woven fabric layer to a reinforcing fabric layer to form each of said first and second fabric layers.

33. (Previously presented) The method according to claim 32 further comprising the step of arranging said first and second fabric layers so that said reinforcing fabric layer forms an outer panel surface and said non-woven fabric layer forms an inner panel surface.

34. (Previously presented) The method of claim 32, further comprising the step of selecting said reinforcing fabric layer from the group consisting of fiberglass, carbon fibers, aramid fibers, linear polyurethane fibers, polypropylene fibers, and polyester.

35. (Previously presented) The method of claim 32, further comprising the step of selecting the non-woven fabric layer from the group consisting of polyester

staple mat, glass fiber mat, a continuous thermoplastic fiber which is needle punched to form a felt-like fabric, or other organic and inorganic fiber mats and fabrics.

36. -39 (Canceled)

40. (Previously presented) A method for manufacturing a composite boat transom comprising the steps of:

positioning a first fabric layer spaced from a second fabric layer to form opposing transom surfaces;

positioning elongated rigid channel members between said first and second fabric layers aligned with locations corresponding to areas of anticipated point compressive loading; and

injecting a foam core between said first and second fabric layers.

41. (Previously presented) The method according to claim 40 further comprising the step of aligning said elongated rigid channel members with an anticipated location of a bolt for an outboard motor bracket.

42. (Previously presented) The method according to claim 41 further comprising the step of selecting said elongated rigid channel members to be formed of metal.

43. (Previously presented) The method according to claim 40 further comprising the step of injecting said foam core within said rigid channel members.

44. (Previously presented) The method according to claim 40 further comprising the step of forming said first and second fabric layers to include fabric flaps at a periphery of said composite transom.

45. (Previously presented) The method according to claim 44 further comprising the step of positioning said composite transom to form part of a composite boat hull and laminating said exposed reinforcing fabric flaps into said composite boat hull.

46. (Previously presented) The method according to claim 40 wherein said injecting step further comprises causing said foam core to penetrate at least partially into interstices of said fabric layer to bind said foam core to said fabric layers.

47. (Previously presented) A method for manufacturing a composite boat transom comprising the steps of:

positioning a first fabric layer spaced from a second fabric layer to form opposing transom surfaces;

positioning elongated rigid channel members between said first and second fabric layers aligned with locations corresponding to areas of anticipated point compressive loading associated with an outboard motor bracket;

injecting a foam core between said first and second fabric layers; and

causing said foam core to penetrate at least partially into interstices of said fabric layers to bind said foam core to said fabric layers.

48. (Previously presented) The method according to claim 47 further comprising the step of selecting said elongated rigid channel members to be formed of metal.

49. (Previously presented) The method according to claim 48 further comprising the step of injecting said foam core within said rigid channel members.

50. (Previously presented) The method according to claim 47 further comprising the step of forming said first and second fabric layers to include fabric flaps at a periphery of said composite transom.

51. (Previously presented) A method of forming high strength panels suitable for use in applications requiring a capability to withstand point compression loading without deformation, comprising the steps of:

positioning a first fabric layer spaced from a second fabric layer to form opposing panel surfaces;

fixing a foam core between at least a portion of said fabric layers to form said panel;

positioning at least one rigid point compressive load bearing member between portions of said foam core along areas of anticipated point compression loading in a location to prevent compression of said foam core when a point compressive load is applied to said point compressive load bearing members; and

selecting said point compressive load bearing member to be an elongated channel formed of a material selected from the group consisting of steel, aluminum and a metal alloy.

52. (Previously presented) A method of forming high strength panels suitable for use in applications requiring a capability to withstand point compression loading without deformation, comprising the steps of:

positioning a first fabric layer spaced from a second fabric layer to form opposing panel surfaces;

fixing a foam core between at least a portion of said fabric layers to form said panel;

positioning at least one rigid point compressive load bearing member between portions of said foam core along areas of anticipated point compression loading in a location to prevent compression of said foam core when a point compressive load is applied to said point compressive load bearing members; and

forming at a periphery of said opposing panel surfaces a plurality of fabric tabs attached to at least one of said first and second fabric layers.

53. (Previously presented) A method of forming high strength panels suitable for use in applications requiring a capability to withstand point compression loading without deformation, comprising the steps of:

positioning a first fabric layer spaced from a second fabric layer to form opposing panel surfaces;

fixing a foam core between at least a portion of said fabric layers to form said panel;

positioning at least one rigid point compressive load bearing member between portions of said foam core along areas of anticipated point compression loading in a

location to prevent compression of said foam core when a point compressive load is applied to said point compressive load bearing members; and

laminating said panel into a composite boat hull to form a transom.

54. (Previously presented) A method of forming high strength panels suitable for use in applications requiring a capability to withstand point compression loading without deformation, comprising the steps of:

positioning a first fabric layer spaced from a second fabric layer to form opposing panel surfaces;

positioning a rigid point compressive load bearing member between said first and second fabric layers along areas of anticipated point compression loading; and

injecting a foam core between at least a portion of said first and second fabric layers to form said panel, wherein said rigid point compressive load bearing member prevents compression of said foam core when a point compressive load is applied to said point compressive load bearing member; and

injecting a foam core into said rigid point compressive load bearing member.

55. (Previously presented) A method of forming high strength panels suitable for use in applications requiring a capability to withstand point compression loading without deformation, comprising the steps of:

positioning a first fabric layer spaced from a second fabric layer to form opposing panel surfaces;

positioning a rigid point compressive load bearing member between said first and second fabric layers along areas of anticipated point compression loading; and

injecting a foam core between at least a portion of said first and second fabric layers to form said panel, wherein said rigid point compressive load bearing member prevents compression of said foam core when a point compressive load is applied to said point compressive load bearing member; and

selecting said rigid point compressive load bearing member to be an elongated channel formed of a material selected from the group consisting of steel, aluminum and a metal alloy.